

C L A I M S

1. Process for inscription of a sheet-like adhesive system of a polymer, preferably on the adhesive-free side thereof, with information, characterized in that the inscription is carried out with the aid of a movably guided laser beam in such a manner that a detrimental influence on the ingredients contained in the system, in particular by heat generated by the laser beam or by detrimental perforation of a backing layer impermeable to ingredients or water vapour, is avoided, and that to this end the intensity and penetration depth of the laser beam is adjusted according to the material properties of the system in such a way that the laser beam does not penetrate far enough to reach an ingredient-containing layer of the system.

2. Process according to Claim 1, characterized in that as the sheet-like adhesive system an active agent-containing therapeutic system in the form of a plaster is utilised.

3. Process according to Claim 1 or 2, characterized in that the material layer to be inscribed is covered with an overlying layer, e.g. a colour layer printed thereon, which is selected such that it disintegrates already at comparatively moderate laser irradiation and in the process visualises the lased characters on the background of the underlying material layer.

4. Process according to Claim 1 or 2, characterized in that under the material layer to be inscribed there is at least one pigment-containing layer, each of the layers being selected such that it disintegrates already at comparatively moderate laser irradiation and in the process visualises the lased characters on the background of the underlying pigmented layer.

5. Process according to one or more of Claims 1 to 3, characterized in that the overlying layer too is provided with a conspicuous colour compared to the material layer to be inscribed.

6. Process according to one or more of Claims 1 to 4, characterized in that the parameters determining the intensity of the effect of the laser beam on the material layer to be inscribed, such as irradiation energy, concentration and rate-dependent duration of action of the laser beam, are matched in such a way that only the uppermost material layers are modified and apart from that no changes are caused in the further substrate layers.

7. Process according to one or more of Claims 1 to 5, characterized in that the laser beam is guided by means of electromagnetic control such that at any time individual signs or groups of characters can be inputted or amended according to a programme of a central control unit, and that, in particular, characters or data records can be inputted by hand by means of a keyboard similar to a typewriter.

8. Process according to one or more of Claims 1 to 5, characterized in that the laser beam is guided by means of electromagnetic control such that data generated by other production steps are transferred to the programme of the control unit.

9. Process according to one or more of Claims 1 to 6, characterized in that to produce a single-coloured or multicoloured pattern of characters or signs, at least two pigmented layers are applied to the inscription substrate layer so as to overly one another, and that these are disintegrated by accurate control of the penetration depth

of the laser beam such that the respective underlying pigmented colour layer is visualised.

10. Device for inscription of a sheet-like adhesive system, in particular for carrying out the process according to Claims 1 to 9, comprising a laser appliance co-operating with means for the control of the laser beam as to its direction and irradiation intensity as determined by a control unit which is provided with a data memory and a data processor, characterized in that the control unit has superimposed thereon a keyboard with a converter for immediate digital input, by hand, of characters or other signs or corresponding data records.

11. Device according to Claim 10, characterized in that data generated by other production steps are transferred alternately or simultaneously to the programme of the control unit for control.

12. Device for inscription of a sheet-like adhesive system, in particular for carrying out the process according to Claims 1 to 9, comprising a laser appliance co-operating with means for the control of the laser beam as to its direction and irradiation intensity as determined by a control unit which is provided with a data memory and a data processor, characterized in that data generated by other production steps are transferred to control the programme of the control unit.